REMARKS

A.   Background

Claims 8-17 were pending in the application at the time of the Office Action. All of the pending claims were rejected as being obvious over cited art. By this response applicant has amended claims 8, 12, and 16; and added new claims 18-23. As such, claims 8-23 are presented for the Examiner's consideration in light of the following remarks.

B.   Proposed Claim Amendments

Applicant has herein amended claims 8, 12, and 16 to further clarify, more clearly define, and/or broaden the claimed inventions to expedite receiving a notice of allowance. For example, independent claim 1 has been amended to recite that "said means for broadcasting advertisements transmits multiple advertisements to a target IP address for the same advertisement slot, with each advertisement having a Time to Live (TTL) inbuilt expiry mechanism, the TTL of some of the multiple advertisements set at a value approaching zero so that those advertisements will expire before they can be played out at the target destination." This amendment is supported in the application at least at page 9, line 31 to page 10, line 11 of the specification as originally filed. In addition, clarifying amendments have been made to various claims to remedy formal matters. Applicant has also added new claims 18-23, which are supported in the application at least by page 6, line 26 to page 7, line 18, as well as page 9, line 31 to page 10, line 11 of the specification and by prior pending claim language. In view of the foregoing, applicant submits that the amendments to the claims do not introduce new matter and entry thereof is respectfully requested.

C. Priority Claim

Paragraphs 1 and 2 of the Office Action acknowledge receipt of the papers filed in the current application under 35 U.S.C. 119(a)-(d) based on an application filed in Great Britain. However, the Office Action asserts that not all of the requirements of 37 CFR 1.63(c) have been complied with because none of the oath, declaration, or application data sheet acknowledge the filing of the priority foreign application.

To remedy this apparent oversight, Applicant submits herewith an application data sheet that identifies the foreign application to which priority is claimed. As set forth in 37 CFR 1.63(c), this should satisfy the claim to foreign priority.

D. Objections to the Specification

Paragraph 3 of the Office Action objects to the title as allegedly not being descriptive and suggests a possible replacement title. Applicant has herein amended the title based on the Examiner's suggestion and thus submits that the objection has been overcome and should be withdrawn.

E. Objections to the Claims

Paragraph 4 of the Office Action objects to claim 16 due to a formality. In view of an amendment made herein to claim 16, as suggested by the Examiner, Applicant submits that the objection has been overcome and should be withdrawn.

F.   Claim Rejections based on 35 U.S.C. 103

   1.   Rejections based on Eldering I and Eldering II

Paragraphs 5 and 6 of the Office Action reject claims 8, 10, 13, and 17 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0148625 to Eldering et al. ("*Eldering I*") in view of U.S. Patent Application Publication No. 2005/0193410 to Eldering ("*Eldering II*"). Applicant respectfully traverses these rejections. Of the rejected claims, claim 8 is the sole independent claim.

Eldering I discloses an ad management system that manages the insertion of targeted advertisements into advertisement opportunities (or "avails"). See Abstract. The ad management system calculates a correlation factor between ads and avails based on various criteria, and then determines a pricing scheme for the advertisers based on the correlation values. The advertisers are then informed of the avails having high correlation with the advertiser's ads and bidding ensues to determine which ads will be used. Once the selected ads are determined, the ads are inserted into the actual program streams by an ad insertion module 114 using a dynamic linking process. See Paragraphs [0082]-[0083]. These program strings can go to groups of subscribers or individual subscribers.

Eldering I discloses that "[o]nce the ad has been inserted in a program stream by the ad insertion module 114, the ad is transmitted to the subscriber along with the actual program stream for viewing." Paragraph [0087]. Thus, while *Eldering I* teaches inserting a targeted ad in a program stream, *Eldering I* discloses inserting only a single ad in any single advertisement slot for any one subscriber. Because of this, Applicant submits that *Eldering I* fails to disclose or suggest "transmit[ing] multiple advertisements to a target IP address for the same advertisement slot," as recited in amended claim 8.

Furthermore, *Eldering I* does not disclose using the TTL expiry mechanism in any manner for determining which advertisements are to be viewed by the subscriber. As such, Applicant submits that *Eldering I* also fails to disclose or suggest "each advertisement having a Time to Live (TTL) inbuilt expiry mechanism, the TTL of some of the multiple advertisements set at a value approaching zero so that those advertisements will expire before they can be played out at the target destination," as also recited in amended claim 8.

Eldering II discloses a targeted advertisement system that allows advertisements to be transmitted to different subgroups by utilizing multicast addresses. The targeted advertisements are inserted in to the program streams at a central distribution point. See Abstract. An apparatus is then used to receive the various program streams and create presentation streams for the receivers of the system. *Eldering II* discloses various ways of transmitting the advertisements to the receivers, including using local storage of the receivers to receive and store the advertisements, then insert the advertisements later into the video stream viewed by the viewer. However, similar to *Eldering I*, *Eldering II* also fails to disclose or suggest transmitting multiple advertisements to a target IP address for the same advertisement slot or using the TTL expiry mechanism to determine which of the multiple advertisements will expire before being played out. As such, *Eldering II* fails to cure these deficiencies of *Eldering I*.

In light of the above, Applicant respectfully submits that a *prima facie* case of obviousness has not been established regarding independent claim 8 at least because the cited references, taken together or individually, fail to disclose all of the limitations of the rejected claims. Specifically, the cited references all fail to disclose "a means for broadcasting advertisements [that] transmits multiple advertisements to a target IP address for the same advertisement slot," or "each advertisement having a Time to Live (TTL) inbuilt expiry

mechanism, the TTL of some of the multiple advertisements set at a value approaching zero so that those advertisements will expire before they can be played out at the target destination," as recited in amended claim 8. Accordingly, Applicant respectfully requests that the obviousness rejection with respect to claim 8 be withdrawn.

Claims 10, 13, and 17 depend from claim 8 and thus incorporate the limitations thereof. As such, applicant submits that claims 10, 13, and 17 are distinguished over the cited art for at least the same reasons as discussed above with regard to claim 8. Accordingly, Applicant respectfully requests that the obviousness rejection with respect to claims 10, 13, and 17 also be withdrawn.

Applicant further submits that it would not have been obvious to otherwise modify *Eldering I* to incorporate the above-identified limitations. According to the present application, for each advertisement that is generated, a time to live (TTL) for each IP address is incorporated into that advertisement, so that only the desired and potentially relevant advertisements will be viewed by the viewer. The TTL, an inbuilt expiry mechanism, is incorporated into the broadcast packets in a standard way because this is already part of the Internet Protocol (see http://www.faqs.org/rfcs/rfc791.html, Item 3.1). Therefore, the system disclosed in the present application uses existing Internet Protocol Television (IPTV) infrastructure.

This use of TTL to control which targeted advertisements are played to an end user is completely different than the manner in which targeted advertisements are currently employed. Existing methods of using targeted advertisements must set up unique individual streams that only include the individual advertisements that will be viewed by each individual viewer. This takes a tremendous amount of processing and decision making. As a result, conventional targeted advertisement providers presently struggle with the constraints of last mile bandwidth

and the provision of sufficient numbers of individual streams to support the selective delivery of individual messages. However, using the approach outlined in embodiments of the present invention, a completely new strategy for delivery of highly targeted content can be immediately deployed by network carriers (typically telephone companies deploying IPTV or CATV providers) without the need for the huge expense involved in massive engineering restructuring.

The presently claimed invention addresses this aim by using the information contained within the existing TTL (Time to Live) header data of the individual IP video content packets as the determinant of which audience member receives which piece of content or advertisement. It works by allocating a zero or negative TTL value to the individual packets of IP video which are deemed by the profiling analysis to be irrelevant, that is, of little or no interest to the viewer, and a higher or positive TTL value to the individual packets which are considered to be more relevant. The effect of this for the viewer is significant. Only relevant content arrives on the viewer's screen because the material which has been deemed irrelevant by the current system will expire en route because of its negative TTL value. In this way all advertisements or pieces of programming content can still be played out using the central broadcast distribution architectures (mainly DSLAM or Head - end environments) with only minimal disruption to the existing transmission process.

TTL is a value in an Internet Protocol packet that tells a network router whether or not the packet has been in the network too long and should be discarded. The practical use of negative TTLs is already well understood for caching applications by those of skill in the art. However, the presently claimed invention use TTL to establish a completely new targeting functionality within IP networks. The initial TTL value is usually set by a system default in an 8 binary digit field of the packet header.

Other deficiencies are also found in conventional systems. For example, injecting tailored content into MPEG streams at any level has yet to be managed in a satisfactory operational manner because of concerns about frame sequencing and the possible buffering of non-tailored content until the 'ad' or targeted content has been played out. These issues are non-existent using TTL as in presently claimed invention. The idea is to set TTLs for multicast broadcast TV content to individual IPTV content streams according to whether the material is designated for them. Thus, TTL becomes the underlying mechanism to control individual distribution of content to end-users.

Using TTL in conjunction with the data capture and analysis phase described in the main body of the independent claim 8, individual IP or MAC addresses, which are unique to each household, can be used to deliver advertising messages to customers on a truly individual basis without having to worry about the frame sequencing and buffering problems. IP networks may evolve from transport platforms to sophisticated targeting mechanisms, while individual audience members and households will see a step change in their enjoyment and experience of television as TTL targeting is able to bring a new level of relevance to their everyday viewing consumption. This is a novel approach that is not found nor contemplated in the art.

2.   Rejections based on further cited art

Paragraphs 7-12 of the Office Action reject claims 9, 11, 12, and 14-16 under 35 U.S.C. 103(a) as being unpatentable over the allegedly obvious combination of *Eldering I* and *Eldering II* and further in view of various other U.S. Patent Publications. Specifically, claim 9 is rejected in view of U.S. Patent No. 6,286,140 to Ivanyi ("*Ivanyi*"); claim 11 is rejected in view of U.S. Patent Application Publication No. 2002/0124253 to Eyer ("*Eyer*"); claim 12 is rejected in view

of U.S. Patent Application Publication No. 2002/0083443 to Eldering et al. ("*Eldering III*");

claim 14 is rejected in view of U.S. Patent No. 6,698,020 to Zigmond ("*Zigmond*"); claim 15 is

rejected in view of U.S. Patent Application Publication No. 2002/0038455 to Srinivasan et al.

("*Srinivasan*"); and claim 16 is rejected in view of *Zigmond* and U.S. Patent Application

Publication No. 2004/0111741 to DePietro ("*DePietro*").

Claims 9, 11, 12, and 14-16 all depend from claim 8 and thus incorporate all of the

limitations thereof. *Ivanyi*, *Eyer*, *Eldering III*, *Zigmond*, *Srinivasan*, and *DePietro* are all merely

cited for allegedly teaching various further limitations recited in the respective dependent claims.

Applicant submits that those references all fail to cure the deficiencies of *Eldering I*, discussed

above. That is, none of *Ivanyi*, *Eyer*, *Eldering III*, *Zigmond*, *Srinivasan*, and *DePietro* disclose

or suggest transmitting multiple advertisements to a target IP address for the same advertisement

slot or using the TTL expiry mechanism to determine which of the multiple advertisements will

expire before being played out. As such, Applicant submits that a *prima facie* case of

obviousness has not been established regarding claims 9, 11, 12, and 14-16 for at least the same

reasons discussed above regarding claim 8. Accordingly, Applicant respectfully requests that the

obviousness rejection with respect to claims 9, 11, 12, and 14-16 be withdrawn.

No other objections or rejections are set forth in the Office Action.

G.   New Claims

Applicant submits that new claims 18-23 are distinguished over the cited art. For

example, new independent claim 20 recites, "wherein the means for broadcasting advertisements

transmits multiple advertisements to a target IP address for the same advertisement slot, each

advertisement having a Time to Live (TTL) inbuilt expiry mechanism, the TTL of some of the

multiple advertisements set at a value approaching zero so that the corresponding advertisements will expire before the advertisements can be played out at the target destination." Applicant submits that none of the cited reference discloses this limitation, as discussed herein.

New independent claim 22 recites that "the programme-receiving audience profiles ... [are] based on an analysis of individual audience member's viewing habits over a period of time and the subsequent build up of these profiles into clusters of interest groups for content and advertisement targeting purposes." Applicant submits that this limitation, in combination with the other limitations of claim 22 is not taught by the cited references.

New claims 18, 19, 21 and 23 depend from independent claims 8, 20, and 22 and thus incorporate the limitations thereof. As such, applicant submits that claims 18, 19, 21, and 23 are distinguished over the cited art for at least the same reasons as discussed above regarding claims 8, 20, and 22.

H.   Conclusion

Applicant notes that this response does not discuss every reason why the claims of the present application are distinguished over the cited art. Most notably, applicant submits that many if not all of the dependent claims are independently distinguishable over the cited art. Applicant has merely submitted those arguments which it considers sufficient to clearly distinguish the claims over the cited art.

In view of the foregoing, applicant respectfully requests the Examiner's reconsideration and allowance of claims 8-23 as amended and presented herein.

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account

No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefor and charge any additional fees that may be required to Deposit Account No. 23-3178.

In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Dated this 29th day of June 2009.

Respectfully submitted,

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